



Standard Methods of Testing and Tolerances for KNIT GOODS¹

This Standard is issued under the fixed designation D 231; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval.

⁶ NOTE—Footnote 2 was editorially added in April 1975.

1. Scope

1.1 These methods of testing and tolerances² apply to the examination of those classes of knit goods which later enter into a manufacturing process.

1.2 When a material requires special treatment, specific methods will be described as they are developed for that material, and such special tests will have precedence over these general requirements.

NOTE 1—The values stated in U.S. customary units are to be regarded as the standard. The metric equivalents of U.S. customary units may be approximate.

2. Applicable Documents

2.1 *ASTM Standards*:

D 76 - 66 Specification for Tensile Testing Machines for Textiles³

D 123 Definitions of Terms Relating to Textiles⁴

D 629 Quantitative Analysis of Textiles⁵

D 1777 Measuring Thickness of Textile Materials⁴

TOLERANCES

3. Tolerances

3.1 Tolerances are the limits within which the specified characteristics of the textile must come to constitute a good delivery on contract.

4. Width

4.1 The width of the fabric shall not vary from the specified width by more than ± 3.5 percent.

5. Weight

5.1 The weight of the fabric shall not vary from the specified weight by more than ± 5

percent.

6. Count

6.1 The average number of wales per inch and of courses per inch shall not vary from the specified number by more than ± 5 percent.

7. Bursting Strength

7.1 The average bursting strength of the fabric shall be not less than the specified strength.

TEST METHODS

8. Width

8.1 Determine the width of the roll or piece (either split or tubular) at five different places uniformly distributed along the full length of the roll or piece. Do not consider any measurement within 8 yd (7.3 m) of either end of the roll or piece. Measure the width with the fabric laid out smooth on a horizontal surface, but without tension in either direction.

8.2 The arithmetic mean of the five measurements shall be the width.

9. Weight

9.1 Determine the average weight per square yard from the weight of the roll or

¹ These methods are under the jurisdiction of ASTM Committee D-13 on Textiles, and are the direct responsibility of Subcommittee D13.59 on Fabric Test Methods, General.

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² These methods and tolerances have not been revised since 1962. In view of the poor precision of these methods, and parts of them being outdated, the standard should be used with caution. Effort to improve the standard is underway.

³ 1966 Book of ASTM Standards, Parts 24 and 25.

⁴ Annual Book of ASTM Standards, Part 32.

⁵ Annual Book of ASTM Standards, Part 33.